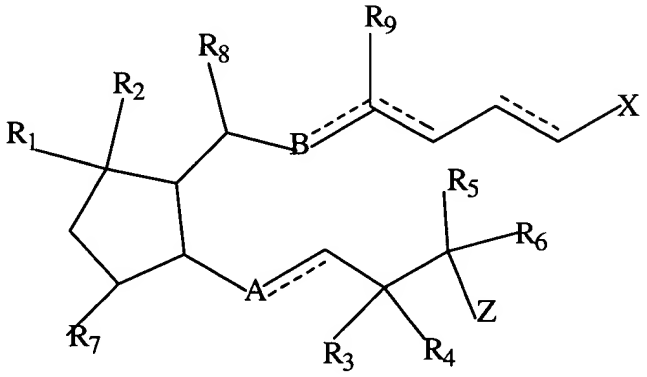
III. Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Canceled)

2. (Currently Amended) A compound of formula (I) or a pharmaceutically acceptable salt thereof, wherein the compound of formula (I) is:



(I)

wherein the dotted lines indicate a single or a double bond;

R_1 is $-OD_1$ or –Cl;

R_2 and R_8 are a hydrogen; or R_1 and R_2 taken together are $=CH_2$ or =O;

R_3 and R_4 are each independently a hydrogen, $-OD_1$ or $-CH_3$;

R_5 and R_6 are each independently a hydrogen, $-OD_1$, $-CH_3$, $-OCH_3$ or $-CH=CH_2$;

R_7 is a hydrogen or $-OD_1$;

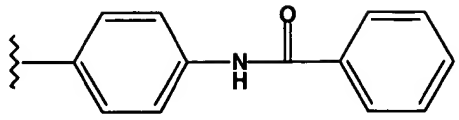
R_9 is hydrogen or absent when the carbon to which it is attached is the central carbon of an allene functionality; or R_8 and R_9 taken together with the chain to which they are attached form a substituted benzene ring with the proviso that R_1 is an oxygen atom which is attached to the carbon atom at the position of the benzene ring defined by B;

A is –CH=, $-CH_2$, -S-, or -O-;

B is –CH=, $-CH_2$, -S-, or –C(O)-;

X is $-CH_2OR_{11}$, $-C(O)OR_{11}$ or $-C(O)N(D_1)R_{12}$;

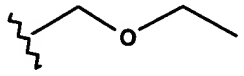
R_{11} is D_1, a lower alkyl group, or



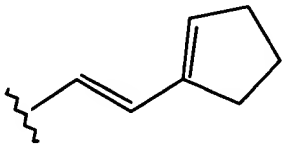
R_{12} is $-S(O)_2CH_3$ or $-C(O)CH_3$;

Z is (a) an ethyl, (b) a butyl, (c) a hexyl, (d) a benzyl,

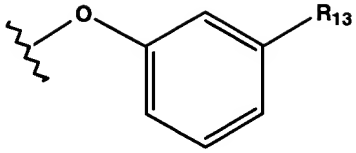
(e)



(f)

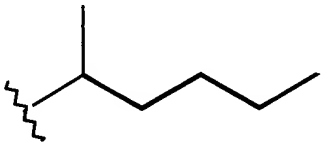


(g)



(h)

or



R_{13} is a hydrogen or –Cl;

D_1 is a hydrogen or D; with the proviso that at least one D_1 in formula (I) must be D;

D is Q or K;

Q is -NO or $-NO_2$;

K is $-W_a-E_b-(C(R_e)(R_f))_p-E_c-(C(R_e)(R_f))_x-W_d-(C(R_e)(R_f))_y-W_i-E_j-W_g-(C(R_e)(R_f))_z-T-Q$; with the proviso that when X is $-C(O)OD_1$ and D_1 is K, then K is not an alkyl, branched alkyl or cycloalkyl mononitrate; a benzoic acid substituted benzyloxy mononitrate; the regioisomeric esters of glycerol dinitrate and oligomers thereof;

a, b, c, d, g, i and j are each independently an integer from 0 to 3;

p, x, y and z are each independently an integer from 0 to 10;

W at each occurrence is independently -C(O)-, -C(S)-, -T-, $-(C(R_e)(R_f))_h-$, an alkyl group, an aryl group, a heterocyclic ring, an arylheterocyclic ring, or $-(CH_2CH_2O)_q-$;

E at each occurrence is independently -T-, an alkyl group, an aryl group, $-(C(R_e)(R_f))_h-$, a heterocyclic ring, an arylheterocyclic ring, or $-(CH_2CH_2O)_q-$;

h is an integer form 1 to 10;

q is an integer from 1 to 5;

R_e and R_f are each independently a hydrogen, an alkyl, a cycloalkoxy, a halogen, a hydroxy, an hydroxyalkyl, an alkoxyalkyl, an arylheterocyclic ring, an alkylaryl, a cycloalkylalkyl, a heterocyclicalkyl, an alkoxy, a haloalkoxy, an amino, an alkylamino, a dialkylamino, an arylamino, a diarylamino, an alkylarylamino, an alkoxyhaloalkyl, a haloalkoxy, a sulfonic acid, a sulfonic ester, an alkylsulfonic acid, an arylsulfonic acid, an arylalkoxy, an alkylthio, an arylthio, a cycloalkylthio, a cycloalkenyl, a cyano, an aminoalkyl, an aminoaryl, an aryl, an arylalkyl, an alkylaryl, a carboxamido, a alkylcarboxamido, an arylcarboxamido, an amidyl, a carboxyl, a carbamoyl, a carbamate, an alkylcarboxylic acid, an arylcarboxylic acid, an alkylcarbonyl, an arylcarbonyl, an ester, a carboxylic ester, an alkylcarboxylic ester, an arylcarboxylic ester, a haloalkoxy, a sulfonamido, an alkylsulfonamido, an arylsulfonamido, a sulfonic ester, a urea, a phosphoryl, a nitro, -T-Q , or R_e and R_f are $-(C(R_e)(R_f))_k$-T-Q, wherein R_e and R_f are as defined herein, ~~$-(C(R_e)(R_p))_k$-T-Q,~~ or R_e and R_f taken together with the carbons to which they are attached form a carbonyl, a methanthial, a heterocyclic ring, a cycloalkyl group or a bridged cycloalkyl group;

~~R_e and R_p are each independently a hydrogen, an alkyl, a cycloalkoxy, a halogen, a hydroxy, an hydroxyalkyl, an alkoxyalkyl, an arylheterocyclic ring, an alkylaryl, a cycloalkylalkyl, a heterocyclicalkyl, an alkoxy, a haloalkoxy, an amino, an alkylamino, a dialkylamino, an arylamino, a diarylamino, an alkylarylamino, an alkoxyhaloalkyl, a haloalkoxy, a sulfonic acid, a sulfonic ester, an alkylsulfonic acid, an arylsulfonic acid, an arylalkoxy, an alkylthio, an arylthio, a cycloalkylthio, a cycloalkenyl, a cyano, an aminoalkyl, an aminoaryl, an aryl, an arylalkyl, an alkylaryl, a carboxamido, a alkylcarboxamido, an arylcarboxamido, an amidyl, a carboxyl, a carbamoyl, a carbamate, an alkylcarboxylic acid, an arylcarboxylic acid, an alkylcarbonyl, an arylcarbonyl, an ester, a carboxylic ester, an alkylcarboxylic ester, an arylcarboxylic ester, a haloalkoxy, a sulfonamido, an alkylsulfonamido, an arylsulfonamido, a sulfonic ester, a urea, a phosphoryl, a nitro, -T-Q , or R_e and R_p taken together with the carbons to which they are attached form a carbonyl, a methanthial, a heterocyclic ring, a cycloalkyl group or a bridged cycloalkyl group;~~

k is an integer from 1 to 3;

T at each occurrence is independently a covalent bond, a carbonyl, an oxygen, $-S(O)_o-$ or $-N(R_a)R_i-$;

o is an integer from 0 to 2;

R_a is a lone pair of electrons, a hydrogen or an alkyl group;

R_i is a hydrogen, an alkyl, an aryl, an alkylcarboxylic acid, an arylcarboxylic acid, an alkylcarboxylic ester, an arylcarboxylic ester, an alkylcarboxamido, an arylcarboxamido, an alkylaryl, an alkylsulfinyl, an alkylsulfonyl, an arylsulfinyl, an arylsulfonyl, a sulfonamido, a carboxamido, a carboxylic ester, an amino alkyl, an amino aryl, $-CH_2-C(T-Q)(R_e)(R_f)$, or $-(N_2O_2-)^-\bullet M^+$, wherein M^+ is an organic or inorganic cation; with the proviso that when R_i is $-CH_2-C(T-Q)(R_e)(R_f)$ or $-(N_2O_2)^-\bullet M^+$, or R_e or R_f are T-Q or R_e and R_f are $-(C(R_e)(R_f))_k-T-Q$, wherein R_e and R_f are as defined herein, ~~$-(C(R_e)(R_p))_k-T-Q$~~, then the "-T- Q" subgroup can be a hydrogen, an alkyl, an alkoxy, an alkoxyalkyl, an aminoalkyl, a hydroxy, a heterocyclic ring or an aryl group;

with the proviso that the compound of formula (I) has at least one NO group or at least ~~one~~ three NO_2 groups linked through an oxygen atom, a nitrogen atom or a sulfur atom.

3. (Currently amended) The compound of claim 2, wherein the compound of formula (I) is a nitrosated arbaprostil, a nitrosylated arbaprostil, a nitrosated and nitrosylated arbaprostil, a nitrosated alprostadil, a nitrosylated alprostadil, a nitrosated and nitrosylated alprostadil, ~~a nitrosated beraprost, a nitrosylated beraprost, a nitrosated and nitrosylated beraprost,~~ a nitrosated carboprost, a nitrosylated carboprost, a nitrosated and nitrosylated carboprost, a nitrosated cloprostenol, a nitrosylated cloprostenol, a nitrosated and nitrosylated cloprostenol, a nitrosated dimoxaprost, a nitrosylated dimoxaprost, a nitrosated and nitrosylated dimoxaprost, a nitrosated enprostil, a nitrosylated enprostil, a nitrosated and nitrosylated enprostil, a nitrosated enisoprost, a nitrosylated enisoprost, a nitrosated and nitrosylated enisoprost, ~~a nitrosated fluprostenol, a nitrosylated fluprostenol, a nitrosated and nitrosylated fluprostenol,~~ a nitrosated fenprostalene, a nitrosylated fenprostalene, a nitrosated and nitrosylated fenprostalene, a nitrosated gemeprost, a nitrosylated gemeprost, a nitrosated and nitrosylated gemeprost, a nitrosated ~~latanaprost,~~ latanoprost, a nitrosylated ~~latanaprost,~~ latanoprost, a nitrosated and nitrosylated ~~latanaprost,~~ latanoprost, ~~a nitrosated limaprost, a nitrosylated limaprost, a nitrosated and nitrosylated limaprost,~~ a nitrosated meteneprost, a nitrosylated

meteneprost, a nitrosated and nitrosylated meteneprost, a nitrosated mexiprostil, a nitrosylated mexiprostil, a nitrosated and nitrosylated mexiprostil, a nitrosated misoprostol, a nitrosylated misoprostol, a nitrosated and nitrosylated misoprostol, ~~a nitrosated misoprost, a nitrosylated misoprost, a nitrosated and nitrosylated misoprost,~~ a nitrosated misoprostol acid, a nitrosylated misoprostol acid, a nitrosated and nitrosylated misoprostol acid, a nitrosated nocloprost, a nitrosylated nocloprost, a nitrosated and nitrosylated nocloprost, a nitrosated ornoprostil, a nitrosylated ornoprostil, a nitrosated and nitrosylated ornoprostil, a nitrosated prostalene, a nitrosylated prostalene, a nitrosated and nitrosylated prostalene, a nitrosated PGE_1, a nitrosylated PGE_1, a nitrosated and nitrosylated PGE_1, a nitrosated PGE_2, a nitrosylated PGE_2, a nitrosated and nitrosylated PGE_2, a nitrosated PGF_1, a nitrosylated PGF_1, a nitrosated and nitrosylated PGF_1, a nitrosated $PGF_{2\alpha}$, a nitrosylated $PGF_{2\alpha}$, a nitrosated and nitrosylated $PGF_{2\alpha}$, a nitrosated rioprostil, a nitrosylated rioprostil, a nitrosated and nitrosylated rioprostil, a nitrosated rosaprostol, a nitrosylated rosaprostol, a nitrosated and nitrosylated rosaprostol, a nitrosated remiprostol, a nitrosylated remiprostol, a nitrosated and nitrosylated remiprostol, a nitrosated sulprostone, a nitrosylated sulprostone, a nitrosated and nitrosylated sulprostone, a nitrosated trimoprostil, a nitrosylated trimoprostil, a nitrosated and nitrosylated trimoprostil, a nitrosated tiprostanide, a nitrosylated tiprostanide, a nitrosated and nitrosylated tiprostanide, a nitrosated unoprostone, a nitrosylated unoprostone, a nitrosated and nitrosylated unoprostone, ~~a nitrosated viprostol, a nitrosylated viprostol, a nitrosated and nitrosylated viprostol~~ or a mixture thereof.

4. (Withdrawn) A composition comprising the compound of claim 2 and a pharmaceutically acceptable carrier.

5 -116. (Canceled)

117. (Currently Amended) Arbaprostil, alprostadil, ~~beraprost,~~ carboprost, cloprostenol, dimoxaprost, enprostil, enisoprost, ~~fluprostenol~~, fenprostalene, gemeprost, ~~latanaprost~~, latanoprost~~, limaprost~~, meteneprost, mexiprostil, misoprostol, ~~misoprost~~, misoprostol acid, nocloprost, ornoprostil, prostalene, PGE_1, PGE_2, PGF_1, $PGF_{2\alpha}$, rioprostil, rosaprostol, remiprostol, sulprostone, trimoprostil, tiprostanide, unoprostone, ~~viprostol~~, or a pharmaceutically acceptable salt thereof, comprising at least one NO group; wherein the at least one NO group is linked to the arbaprostil, alprostadil, ~~beraprost,~~ carboprost, cloprostenol, dimoxaprost, enprostil, enisoprost, ~~fluprostenol~~, fenprostalene, gemeprost, ~~latanaprost~~, latanoprost~~, limaprost~~,

meteneprost, mexiprostil, misoprostol, ~~misoprost~~, misoprostol acid, nocloprost, ornoprostil, prostalene, PGE_1, PGE_2, PGF_1, $PGF_{2\alpha}$, rioprostil, rosaprostol, remiprostol, sulprostone, trimoprostil, tiprostanide, unoprostone, or ~~viprostol~~, through an oxygen atom, a nitrogen atom or a sulfur atom.